KHRUSHCHEV, N.

To the drill master office No.3 of the Drilling Trust of the
Al'met'yevsk Petroleum Industry, Hero of Socialist Labor
Comrade M.P.Grin' and all the workers of his brigade.  Neftianik
6 no.2:2  F '61.
     (Al'met'yevsk region---Oil well drilling)     (MIRA 14:10)

POZHARITSKIY, K. L.; KHRUSHCHEV, N.A., red.

[Determining the content of valuable components in the margins of an ore deposit] Opredelenie bortovogo soderzhaniia tsennykh komponentov v rude mestorozhdeniia. Moskva, M-vo geologii i okhrany nedr SSSR, 1962.   30 p.
(MIRA 17:8)

KHRUSHCHEV, N.A.

Tyrny-Auz, the skarn tungsten-molybdenum deposit in the Northern Caucasus [with summary in English]. Sov. geol. 1 no.2:51-72 '58.

(MIRA 11:4)

1. Vsesoyuznyy institut mineral'nogo syr'ya.
    (Caucasus, Northern--Ore deposits)

KHRUSHCHEV, N.G.

Tissular reactions of the skin to deafferentation. Izv.AN SSSR.Ser.biol. no.5:780-787 S-O '59. (MIRA 13:2)

1. The Second State Medical Institute, Moscow.
(SKIN--INNERVATION)

KHRUSHCHOV, N. G. Cand Med Sci — (diss) "On the reactions of tissues of deafferented skin." Mos, 1959. 16 pp (2nd Mos State Med Inst im N. I. Pirogov), 250 copies (KL, 50-59, 129)

- 68 -

KHRUSHCHEV, N. G.; YERMOLAYEVA, L. P.; ZBARSKIY, I. B.

"On the Existence and Intranuclear Localization of a DNA fraction differing by its Base Composition from Total Cellular DNA."

report to be presented at the 6th Intl Biochemistry Cong, New York City, 26 Jul- 1 Aug 1964.

KHRUSHCHEV, N.S.; PODGORNYY, N.V.; ZASYAD'KO, A.F.; RUDAKOV, A.P.; KAZANETS, I.P.; SHILIN, A.A.; MEL'NIKOV, N.V.; BURMISTROV, A.A.; SHEVCHENKO, V.V.; MAYAKOV, L.I.; ROZENKO, P.A.; KUZ'MICH, A.S.; ZADEMIDKO, A.N.; BRATCHENKO, B.F.; STRUYEV, A.I.; KRASNIKOVSKIY, G.V.; BOYKO, A.A.; KAGAN, F.Ya.; USKOV, A.A.; VLADYCHENKO, I.M.; TOPCHIYEV, A.V.; DEGTYAREV, V.I.; KHUDOSOVTSEV, N.M.; GRAFOV, L.Ye.; IVANOV, V.A.; KRATENKO, I.M.; GOLUB, A.D.; IVONIN, I.P.; SAVCHENKO, A.A.; ROZHCHENKO, Ye.N.; CHERNEGOV, A.S.; MARKELOV, M.N.; LALAYANTS, A.M.; GAPONENKO, F.T.; POLUEKTOV, I.A.; SKLYAR, D.S.; PONOMARENKO, N.F.; POTAPOV, A.I.; POLYAKOV, N.V.; SUBBOTIN, A.A.; POLSTYANOY, G.N.; TRUKHIN, P.M.; TKACHENKO, A.G.; OSTROVSKIY, S.B.; NYRTSEV, M.P.; DYADYK, I.I.; SHPAN'KO, T.P.; RUBCHENKO, V.P.

Kondrat Ivanovich Pochenkov; obituary. Sov. shakht. 11 no.9: 48 S '62.

(MIRA 15:9)

(Pochenkov, Kondrat Ivanovich, 1905-1962)

AUTHORS:        Khrushchev, N. S., Margulis, U. Ya., Stepanov, S. M.

TITLE:          A method of increasing the utilization factor of radiation
                in gamma-irradiation units

PERIODICAL:     Atomnaya energiya, v. 12, no. 6, 1962, 536-537

TEXT: Methods of raising the utilization factor of gamma-irradiation units,
which is defined as $\eta = AB \cdot 100 / Mk \cdot 3.7 \cdot 10^{10} E_\gamma \cdot 1.6 \cdot 10^{-6}$, are discussed. Here,
A is the output of the unit in g/sec, B is the total radiation absorption
in rad dose required for the object; 100 is the energy equivalent
(1 rad = 100 erg/g); M is the gamma-ray equivalent of the source in
g·eq Ra; k is a factor necessary to express the gamma-ray equivalent in
activity units (curies); $3.7 \cdot 10^{10}$ is the number of decays per sec of a
source of 1 curie activity; $E_\gamma$ is the gamma-ray energy in Mev/decay; and
$1.6 \cdot 10^{-6}$ is the energy equivalent of 1 Mev. In most cases, active rods or
rod assemblies (active planes) are used as irradiators, the object length d
being equal to 0.7 - 0.8 L (L = length of the rod). Utilization can be
Card 1/2

A method of increasing the ...

S/089/62/012/006/017/019
B102/B104

impr...d by increasing d. This method is feasible if no uniform irradiation of the object is required. If $d_1 = md$, $A_1 = mA$, and $\eta_1 = \eta m/n$, the activity of the source has to be increased by a factor n. The space around the source can be utilized much better if the objects are placed on conveyer lines and irradiated in two cycles (Fig. 2). In this case, the total length of the object (2d) may reach 1.5 - 1.6 L, and $\eta$ is raised by 40%. There are 2 figures.

SUBMITTED:      December 2, 1961

Card 2/1

KHRUSHCHEV, N.S.

Tasks set for the Communists and the Soviet people by our
Party in the field of internal policy for the immediate
future. Shvein.prom. no.6:1 N-D '61.          (MIRA 14:12)
            (Communist Party of the, Soviet Union)

KHRUSHCHE', N.

Message to the members of the International Trade-Union Congress for
a German Peace Treaty, a Peaceful Settlement of the West Berlin Prob-
lem, and Against War Provocation.  Vsem. prof. dvizh.  no.11/12:59
N-D '61.                                                (MIRA 14:11)
        (Trade unions--Congresses)  (Germany--Peace treaties)

KHRUSHCHEV, Nikita Sergeyevich; POLYAKOVA, N., red.; MUKHIN, Yu.,
    tekhn. red.

    [The building of communism in the U.S.S.R. and the develop-
    ment of agriculture]Stroitel'stvo kommunizma v SSSR i raz-
    vitie sel'skogo khoziaistva v piati tomakh. Moskva, Gos-
    politizdat. Vol.2. [February, 1955 - January, 1958]Fevral'
    1955 goda - ianvar' 1958 goda. 1962. 533 p. (MIRA 15:10)
            (Agricultural policy)

KHRUSHCHEV, N. S.

For the solidarity, unity, and fraternity of workers of all countries!
Vsem prof. dvizh. no.1:7-16  Ja '62.                    (MIRA 15:2)
          (Trade unions—Congresses)    (Communism)
                    (World politics)

KHRUSHCHEV, Nikita Sergeyevich

[All reserves of industry and construction in the service of
communism! Speech at the assembly of industry and construction
workers of the R.S.F.S.R., April 24, 1963] Vse rezervy pro-
myshlennosti i stroitel'stva - na sluzhbu kommunizmu! Rech' na
soveshchanii rabotnikov promyshlennosti i stroitel'stva RSFSR
24 aprelia 1963 goda.  Moskva, Gospolitizdat, 1963.  78 p.
                                              (MIRA 16:4)
                       (Efficiency, Industrial)

KHRUSHCHEV, S.V.

KHRUSHCHEV, S.V.

Exercise therapy for bronchial asthma in children. Vop.okh.mat. i
det. 2 no.3:47-54 My-Je '57.                          (MLRA 10:7)

1. Iz kafedry fizicheskogo vospitaniya i vrachebnoy fizkul'tury
(zav. - dotsent S.M.Ivanov) II Moskovskogo meditsinskogo instituta
imeni I.V.Stalina (dir. - prof. O.V.Kerbikov)
     (ASTHMA)  (EXERCISE THERAPY)

KHRUSHCHEV, S.V., Cand Med Sci--(diss)  "Therapeutic physical cul-

ture  in bronchial asthma in children."  Mos, 1957.  17 pp (Second

Mos State Med Inst im N.I. Pirogov),  200 copies (KL,22-58,116)

-/91-

KHRUSHCHEV, S.V.

"Be skillful, strong, and slender" by B.A.Flerovskii, B.I.IAnkele-
vich. Reviewed by S.V.Khrushchev. Pediatriia no.3:84 Mr '57.
(PHYSICAL EDUCATION FOR CHILDREN)        (MIRA 10:10)
(FLEROVSKII, B.A.)   (IANKALEVICH, B.I.)

LEBEDEVA, T.I.; KHRUSHCHEV, S.V., kand.med.nauk

Use of exercise therapy in the over-all treatment of polio-
myelitis under hospital conditions. Vop.okh.mat.i det. 5
no.3:46-49 My-Je '60.                              (MIRA 13:7)

1. Iz kafedry detskikh infektsionnykh bolezney (zav. I.B. Apol-
lonova) i kafedry fizicheskogo vospitaniya, lechebnoy fizkul'-
tury i vrachebnogo kontrolya (zav. S.V. Khrushchev) Ivanovskogo
gosudarstvennogo meditsinskogo instituta (dir. - dotsent Ya.M.
Romanov) i 1-y gorodskoy bol'nitsy (glavnyy vrach L.I. Safarov).
          (POLIOMYELITIS)     (EXERCISE THERAPY)

KHRUSHCHEV, S.V., dotsent; KARPOVA, T.M.

Physical education of senior students. Zdrav.Ros.Feder. 7
no.1:42 Ja '63.                                          (MIRA 16:2)

1. Iz Ivanovskogo meditsinskogo instituta.
            (PHYSICAL EDUCATION AND TRAINING)

KHRUSHCHEV, S.V., kand. med. nauk; CHISTYAKOVA, V.A.

Rare case of congenital heart defect. Sbor. nauch. trud. Ivan.
gos. med. inst. no. 28:206-209  ' 63              (MIRA 19:1)

1. Iz kafedry gospital'noy pediatrii ( zav. - dotsent A.N. Karlova)
Ivanovskogo gosudarstvennogo meditsinskogo instituta (rektor -
dotsent Ya.M. Romanov) i 1-y gorodskoy bol'nitsy g. Ivanovo
(glavnyy vrach - L.I. Safarov).

KHRUSHCHEV, V.F., arkhitektor

Pavilion-type buildings of the ore-dressing industry. Prom. stroi.
41 no.10:5-10 0 '63.

(MIRA 16:11)

1. Lenpromstroyproyekt.

*KRUSHCHEV, V.G.*

PHASE I BOOK EXPLOITATION          SOV/1297

Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po primeneniyu radioaktivnykh i stabil'nykh izotopov i izlucheniy v narodnom khozyaystve i nauke, Moscow, 1957

Primeneniye izotopov. Moshchnuye gamma-ustanovki. Radiometriya i dozimetriya; trudy konferentsii... (Isotope Production. High-energy Gamma-Radiation Facilities. Radiometry and Dosimetry) Transactions of the All-Union Conference on the Use of Radioactive and Stable Isotopes and Radiation in the National Economy and Science) Moscow, Izd-vo AN SSSR, 1958. 293 p. 5,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR; Glavnoye upravleniye po ispol'zovaniyu atomnoy energii SSSR.

Editorial Board: Frolov, Yu.S. (Resp. Ed.), Zhavoronkov, N.M. (Deputy Resp. Ed.), Aglintsev, K.K., Alekseyev, B.A., Bochkarev, V.V., Lebedinskiy, A.V., Maikov, Y.P., Sinitsyn, V.I., and Popova, O.I. (Secretary); Tech. Ed.: Movichkov, M.D.

PURPOSE: This collection is published for scientists, technologists, persons engaged in medicine or medical research, and others concerned with the production and/or use of radioactive and stable isotopes and radiation.

COVERAGE: Thirty-eight reports are included in this collection under three main subject divisions: 1) production of isotopes 2) high-energy gamma-radiation facilities, and 3) radiometry and dosimetry.

TABLE OF CONTENTS:

PART I. PRODUCTION OF ISOTOPES

Frolov, Yu.S., V.V. Bochkarev, and Ye.Ye. Kulish. Development of Isotope Production in the Soviet Union. This report is a general survey of production methods, apparatus, raw materials, applications, investigations and future prospects for radio isotopes in the Soviet Union.          5

Card 2/12

Basic problems concomitant to planning and constructing radiation facilities are systematized according to the purpose of the facility. Descriptions and schematic drawings are given for some facilities classified as to purpose: a) experimental radiobiology, (intended for low radiation of relatively small objects (animals, plants) b) experimental installations intended for radiation of various biological preparations of small size but requiring high doses (microorganisms, biological substances) c) industrial radiation of biological products requiring sterilization, preservation, disinfection, etc. d) medical and therapeutical purposes

Card 7/12

KHRUSHCHEV, V.G.

"Installations for Experimental Irradiation". p. 129

Trudy Vsesoyuznoy Konferentsii po Meditsinskoy Radiologii
(Voprosy Gigiyeny i Dozimetrii)  Medgiz, 1957, Moscow Russian, OK.

Proceedings of the All-Union Conference on Medical Radiology
(Hygienic and Dosimetric Problems).

KHRUSHEV, V.G. KHRUSHCHEV Y.G.

AUTHOR:     DOMSHLYAK,M.P., KHRUSCHEV,V.G.                    PA - 2274
TITLE:      An Experimental Gamma Irradiator. (EGO-2)
            (Eksperimental'nyy gamma-obluchatel' (EGO-2), Russian).
PERIODICAL: Atomnaia Energiia, 1957, Vol 2, Nr 2, pp 197 - 198 (U.S.S.R.).

ABSTRACT:   An experimental $\gamma$-apparatus was constructed and put into
            service at the academy of medical science of the USSR in Moscow.
            It mainly serves for the irradiation of laboratory animals in
            order to study the biological effect of $\gamma$-radiation. Besides, this
            apparatus is suited for the study of the problem of "cold
            sterilization" and of the influence of radiation on the course
            of chemical processes in various media. The apparatus uses a set
            of $C^{60}$ - preparations with a total activity of 5 curie. These
            preparations are distributed in such a manner that a cylindrical
            space with a diameter of 30 cm and a length of 70 cm can be ir-
            radiated uniformly. With less uniformity it is possible to ir-
            radiate a cylindrical space of a diameter of 50 cm and a length
            of 100 cm. The apparatus is suited for various radiation dosage
            outputs: 200 r/min, 400 r/min, and 600 r/min.

            This stationary apparatus consists of two mixing basins filled
            with water with concrete walls of a density of 3,5 t/m$^3$. Such a
            density warrants a reduction of the background of $\gamma$-radiation to
Card 1/2    a harmless level. The first, small basin serves for the reception,
            treatment and measuring of radioactive preparations. In the

An Experimental Gamma Irradiator.

PA - 2274

second basin, which is larger, there are the radiation sources, a cylindrical chamber for the objects to be irradiated. The cylindrical chamber was fitted to the front wall of the large basin and has a massive cast-iron protective door. The device with the radiation sources is in the opposite part of the basin. The chamber can be charged without danger. The preparations are brought into working position hydraulically. On this occasion the preparations are shifted through pipes and they are distributed round the cylindrical chamber. The object is then irradiated through the aluminium wall of this chamber. Shifting of the preparations takes two seconds and is remote-controlled.

This $\gamma$-irradiator has several advantages: It is possible to irradiate large animals in a uniform radiation field with strong radiation doses. Besides, $\gamma$-irradiator warrants great stability of the conditions of radiation influence. At present this $\gamma$-irradiator is being used for numerous experimental investigations within the domain of radio biology, physical chemistry, and dosimetry. (2 illustrations).

ASSOCIATION:
PRESENTED BY:  Not given
SUBMITTED:
AVAILABLE:
Card 2/2

TROITSKIY, V. L. and KHRUSHCHEV, V. G.


"Ways of Use of Ionizing Radiation in the Manufacture of Bacterial Preparations."

paper to be presented at 2nd UN Intl. Conf. on the peaceful uses of Atomic Energy, Geneva, 1 - 13 Sep 58.

26-58-7-21/48

AUTHORS:     Rubin, B.A., Professor, Metlitskiy, L.V., Khrushchev, V.G.

TITLE:       The Use of Gamma Rays in Long-Period Storage of Potatoes
             (Ispol'zovaniye gamma-luchey pri dlitel'nom khranenii kar-
             tofelya)

PERIODICAL:  Priroda, 1958, Nr 7, pp 91-94 (USSR)

ABSTRACT:    Large amounts of potatoes stored over a long period of time
             at temperatures above 5°C are subject to fast rotting, while
             at temperatures below 5°C they soon acquire a sweetish taste,
             take a longer time until they are sufficiently cooked and
             are inclined to get black spots when being cooked. Dusting
             with 3.5% of methyl ether of alpha-naphthyl acetic acid pre-
             serves the bulbs over an extended period of time but makes
             them an easier prey to the attacks of microorganisms. X-ray
             doses of 10,000 to 16,000 r applied to the potatoes at normal
             temperatures kept them fresh for 8 months. By their physic-
             al nature and biological effect, gamma rays are close to
             X-rays, but can be used easier under normal conditions.
             Their application for potato storage purposes, however, re-
             mains in the experimental stage, since the changes occur-
Card 1/3     ring in the potato tissues have not been studied sufficient-

26-58-7-21/48

The Use of Gamma Rays in Long-Period Storage of Potatoes

ly . This was done by the authors of the article together with Ye.T. Mukhina, Ye.T. Sal'nikova, N.P. Korableva, A.V. Mikheyeva and N.P. Morozova, in order to find the best factors for gamma radiation application. It was found out that the meristematic tissues stay alive at a radiation dose of up to 50,000 r, while they undergo changes at 10,000 r, such as a reduction of nucleic acids by 10% which increases to 25% within 2 months. Doses of 100,000 r killed the Phytophtora infestans fungus. The Institut pitaniya AMN SSSR (The USSR Academy of Medical Sciences' Food Institute) has for several years conducted experiments with animals that were fed with potatoes radiated with doses of up to 40,000 r. No negative results were observed. The vitamin C content is reduced, decreasing immediately upon the radiation but increasing again with time, and attaining the normal level in spring. A dose of 10,000 r gave the best results for a period of 300 days, 10% losses as compared with 30% in untreated potatoes. The authors suggest a mobile irradiation station of a simple construction principle sufficient for the radiation of 25 to 30,000 tons of potatoes.

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26-58-7-21/48

The Use of Gamma Rays in Long-Period Storage of Potatoes

There is 1 photo and 1 figure.

ASSOCIATION: Institut biokhimii imeni A.N. Bakha AN SSSR - Moskva (Institute of Biochemistry imeni A.N. Bakh of the AS USSR - Moscow)

1. Potatoes--Storage    2. Gamma rays--Applications

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KHRUSHCHEV, V.G.

SOV/2808

21(6); 17(6)

PHASE I BOOK EXPLOITATION

International Conference on the Peaceful Uses of Atomic Energy. 2d, Geneva, 1958

Doklady sovetskikh uchenykh; radiobiologiya i radiatsionnaya meditsina (Reports of Soviet Scientists; Radiobiology and Radiation Medicine) Moscow, Izd-vo Glav. upr. po ispol'zovaniyu atomnoy energii pri Sovete Ministrov SSSR, 1959. 439 p. 8,000 copies printed. (Series: Vtoraya Mezhdunarodnaya konferentsiya po mirnomu ispol'zovaniyu atomnoy energii, Trudy, tom 3)

General Ed.: A.V. Lebedinsky, Corresponding Member, USSR Academy of Medical Sciences; Ed.: L.G. Shirokov; Tech. Ed.: Ye.I. Mazel'.

PURPOSE: This book is intended for physicians, scientists, and engineers as well as for professors and students at vuzes where radiobiology and radiation medicine are taught.

COVERAGE: This is Volume 3 of a 6-volume set of reports delivered by Soviet scientists at the Second International Conference on the Peaceful Uses of Atomic Energy, held on September 1-13, 1958, in Geneva. Volume 3 contains 32 reports edited by Candidates of Medical Sciences S.V. Levinskiy and V.V. Pozdov. The reports cover problems of the biological effects of ionizing radiation, future consequences of radiation in small doses, genetic effects of radiation, treatment of radiation sickness, uses of radioactive isotopes in medical and biological research, uses of atomic energy for diagnostic and therapeutic purposes, soil absorption of uranium fission products, their intake by plants, and their storage in plants and foodstuffs. References accompany each report.

Reports of Soviet Scientists (Cont.)

Bugayenko, Ye.M., and Yu.I. Moskalev. Some Results of Labeling with Tritium in Biological Studies (Report No. 2270)

Slepchenko, N.I. Special Features of Albumin Synthesis in the Plant and Animal Cell (Report No. 2214)

Antonov, V.S. Control Mechanism of the Thyroid Gland Functions by the Nervous System (Report No. 2222)

Kolli, Yu.A. Effect of Various Factors on the Biosynthesis of Thyroxin Performed by the Thyroid Gland (Report No. 2075)

Rozenblat, V.A., L.R. Tsenglovskiy, and I.Ch. Gorozonko. Using Phosphoric Acid of Calcium, Rheumalamine, and Serine in Phospholipid Synthesis in the Body (Report No. 2115)

Pershina, A.I. Using C14 and P32 in Study Metabolism in Muscles (Report No. 2197)

Fedorov, A.A. Aminazine (Chlorpromazine), its Promazine, and 3,5- Chloromazine (Chlorpromazine) in the Organism (Report No. 2276)

Kozlova, A.V. Using Radioactive Isotopes in the Clinic for Diagnostic and Therapeutic Purposes (Report No. 2056)

Sarkisov, V.Sh., K.N. Radegov, and S.F. Rabinovich. Isotopic Encephalography and Electroencephalography for the Localization of Brain Tumors (Report No. 2059)

Saenko, Z.I., and G.M. Frank. Studying the Fast Translocation of Substances in the Organism by Means of Gamma Emitting Isotopes (Report No. 2061)

Gusinsky, V.I., N.A. Zemnov, L.G. Perekhov, V.L. Pelisov, I.G. Derushev, A.I. Kozin, V.M. Kondrashenko, O.Ya. Gavrilov, A.K. Ivanishchev, I.S.I. Gabler. Methods of Using Iodine Radiation in the Production of Bacterial Preparations (Report No. 2071)

Rozhkovskiy, D.V., Yu.I. Moskalev, and O.I. Tsvetkova. Sorption of Microquantities of Strontium and Cesium in Soils (Report No. 2310)

Card 6/7

DOMSHLAK, M.P.; DARENSKAYA, N.G.; KOZNOVA, L.B.; KHRUSHCHEV, V.G.

Problems in experimental techniques of radiation effects and certain radiobiological data. Med.rad. 4 no.12:3-11 D '59.

(RADIATION EFFECTS)                                        (MIRA 13:5)

KHRUSHCHEV V. G.

ERMOV G. D.

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PHASE I BOOK EXPLOITATION    SOV/5410

Tashkentskaya konferentsiya po mirnomu ispol'zovaniyu atomnoy
energii. Tashkent, 1959.

Trudy (Transactions of the Tashkent Conference on the Peaceful
Uses of Atomic Energy) v. 2. Tashkent, Izd-vo AN UzSSR, 1960.
449 p. Errata slip inserted. 1,500 copies printed.

Sponsoring Agency: Akademiya nauk Uzbekskoy SSR.

Responsible Ed.: S. V. Starodubtsev, Academician, Academy of
Sciences Uzbek SSR. Editorial Board: A. A. Abdullayev, Can-
didate of Physics and Mathematics; D. M. Abdurasulov, Doctor
of Medical Sciences; U. A. Arifov, Academician, Academy of
Sciences Uzbek SSR; A. A. Borodulina, Candidate of Biological
Sciences; V. N. Ivashev; G. S. Ikramova; A. Ye. Kiv; Ye. M.
Lobanov, Candidate of Physics and Mathematics; A. I. Nikolayev,
Candidate of Medical Sciences; D. Nishanov, Candidate of Chemical
Sciences; A. S. Sadykov, Corresponding Member, Academy of Sciences
USSR, Academician, Academy of Sciences Uzbek SSR; Yu. N. Talanin,

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.Transactions of the Tashkent (Cont.)              SOV/5410

Candidate of Physics and Mathematics; Ya. Kh. Turakulov, Doctor
of Biological Sciences.  Ed.: R. I. Khamidov;  Tech. Ed.: A. G.
Babakhanova.

PURPOSE :  The publication is intended for scientific workers and
specialists employed in enterprises where radioactive isotopes
and nuclear radiation are used for research in chemical, geo-
logical, and technological fields.

COVERAGE:  This collection of 133 articles represents the second
volume of the Transactions of the Tashkent Conference on the
Peaceful Uses of Atomic Energy.  The individual articles deal
with a wide range of problems in the field of nuclear radiation,
including: production and chemical analysis of radioactive
isotopes; investigation of the kinetics of chemical reactions
by means of isotopes; application of spectral analysis for the
manufacturing of radioactive preparations; radioactive methods
for determining the content of elements in the rocks; and an
analysis of methods for obtaining pure substances.  Certain

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Transactions of the Tashkent (Cont.)                    SOV/5410

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instruments used, such as automatic regulators, flowmeters,
level gauges, and high-sensitivity gamma-relays, are described.
No personalities are mentioned. References follow individual
articles.

TABLE OF CONTENTS:

RADIOACTIVE ISOTOPES AND NUCLEAR RADIATION
IN ENGINEERING AND GEOLOGY

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Transactions of the Tashkent (Cont.)                    SOV/5410

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21.5000

77253
SOV/89-8-2-18/30

AUTHORS:    Grammatikati, V. S., Margulis, U. Ya., Khrushchev, V. G.

TITLE:    The Dose Field of a Linear Source. Letter to the Editor

PERIODICAL:    Atomnaya energiya, 1960, Vol 8, Nr 2, pp 154-155 (USSR)

ABSTRACT:    Since radioactive line sources are fairly common in applied and experimental devices, the authors thought it useful to present an approximate but sufficiently accurate method of calculations. As is known, the dose strength $P_A$ of point A at distance h inside an object, Fig. 1, can be represented by means of tabulated integrals of Sievert (see ref):

$$P_A = \frac{k_\gamma m}{H} \left[ A_1 \int_0^{\psi_0} e^{-\mu h (u_1 + 1) \sec \varphi} \, d\varphi + A_2 \int_0^{\psi_0} e^{-\mu h (u_2 + 1) \sec \varphi} \, d\varphi \right]. \qquad (3)$$

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The Dose Field of a Linear Source.    Letter    77253
to the Editor    SOV/89-8-2-18/30

where $\varphi_0 = \tan^{-1} \frac{h}{H}$; H is distance from point A to the
source; $k_\gamma$ , $\gamma$ -constant of the isotrope; m, linear
activity of the source in $\mu$ Curie/cm (if m is expressed
in mg equivalent Ra, then $k_\gamma$ = 8.4 R/h = 0.14 R/min);
$\mu$ , linear coefficient of decrease of a thin beam of
$\gamma$ -rays; $A_2 = 1 - A_1$, a constant; $\alpha_1$ and $\alpha_2$,
constants whose values for various absorbers and various
energies of radiation are given in Goldstein's report
and Rockwell's book (see refs).
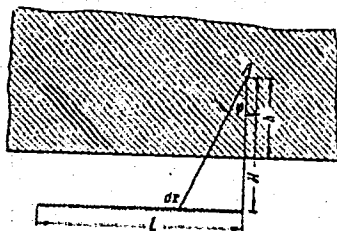


Card 2/6    Fig. 1. Diagram for calculations of doses due to a
linear source.

The Dose Field of a Linear Source.  Letter     77253
to the Editor                                  SOV/89-8-2-18/30

Equation (3) holds for an object of infinite length and
is also good for bounded geometry to approximately 10%
accuracy.  The authors computed the dose field for
$Co^{60}$ rays.  Absorber was water, and values of constants
used in the computation of Fig. 2 were:  $\mu$ = 0.063
$cm^{-1}$;  $\alpha_1$ = -0.095;  $\alpha_2$ = 0.060; $A_1$ = 8.88; $A_2$ =
= 1 - $A_1$ = -7.88.  To find from this picture the dose
in air at a point A, one has to use the curve h = 0.
An approximate formula accurate to 10-15% is:

$$P_A = P_0 \eta e^{-0.05 (h - \Delta)},\qquad(4)$$

where $P_0$ is dose strength in air at the given point,
and $\mu$ and $\Delta$ are constants, depending on ratio H/L.
This formula works for cases h $\geq$ 10 cm, at H/L $\leq$ 0.1;
Card 3/6          for h $\geq$ 15 cm, at 0.6 $\geq$ H/L $\geq$ 0.2; and for h $\geq$ 20 cm,

The Dose Field of a Linear Source.    Letter          77253
to the Editor                                          SOV/89-8-2-18/30
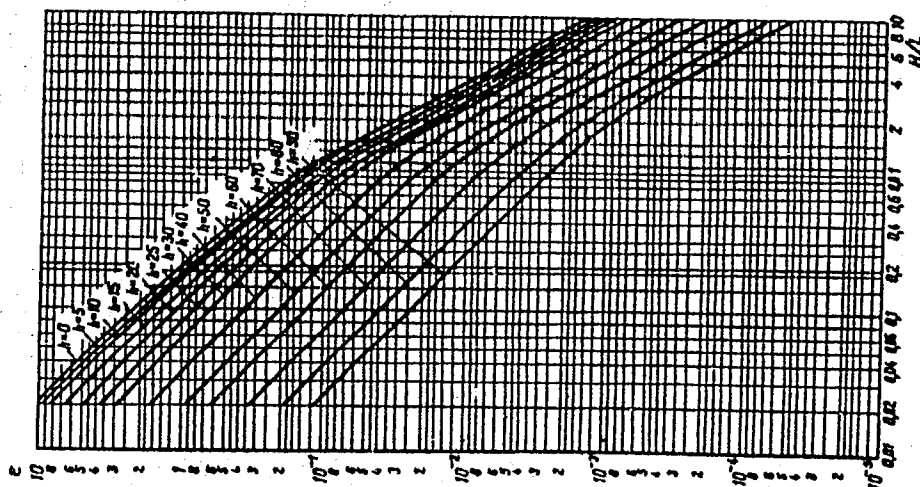


Card 4/6            Fig. 2. Nomogram for calculations of dose strength
                    in water due to a linear source.

The Dose Field of a Linear Source.   Letter        77253
to the Editor                                      SOV/89-8-2-18/30

at $10 \geqslant$ H/L $\geqslant 0.7$.   For smaller values of h one uses:

$$P_A = P_0 [1 - 2 \cdot 10^{-3} (h - \sigma)].\qquad(7)$$

For both equations the constants are given in Table A.

Table A.   Values of Constants in Eq. (6) and (7).

| INTERVAL OF VALUES H/L | η | Δ | σ | CALCULATIONS MADE USING EQUATION (7) FOR THE FOLLOWING VALUES OF h, CM |
|---|---|---|---|---|
| 0,01—0,1 | $(1-2 \cdot 10^{-3} h)$ | 5 | 0 | < 10 |
| 0,2—0,6 | 1 | 8 | 3 | < 15 |
| 0,7—1,0 | 1 | 12 | 3 | < 20 |
| 2,0—10,0 | $(1+4 \cdot 10^{-3} h)$ | 15 | 5 | < 20 |

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The Dose Field of a Linear Source. Letter        77253
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In case of a medium other than water with a density $\rho$,
at a depth $h^1$ one can utilize Fig. 2 or Eq. (6) and $\rho$,
(7) for a given H/L by writing $h = \rho \, h^1$. There are
2 figures; 1 table; and 5 references, 1 Swedish, 4
U.S.   The U.S. references are: H. Goldstein, Calcula-
tion of the Pentration of $\gamma$-Rays, US AEC, report
NDA-NYO 3075 (1954); U. Fano, Nucleonics, 2, Nr 8, 1
(1953); L. Spencer, U. Fano, J. Res. Nat. Bur. Standards,
46, 446 (1951); Shielding of Nuclear Reactor, edited
by T. Rockwell, M.Izd-vo inostr. lit. 1958.

SUBMITTED:      May 4, 1959

Card 6/6

MARGULIS, U. Ya.; STEPANOV, S.M.; KHRUSHCHEV, V.G.

Calculation of the dose received by an irradiated object moving
in the field of radiation of a line source. Atom.energ. 9
no.4:320 O '60.                                      (MIRA 13:9)
          (Radiation--Dosage)

LIVANOV, M.N.;  TSYPIN, A.B.;  TRIGOR'YEV, Yu.G.;  KHRUSHCHEV, V.G.;
STEPANOV, S.M.;  ANAN'YEV, V.M. (Moskva)

Effect of an electromagnetic field on the bioelectric activity
of the cerebral cortex in rabbits.  Biul. eksp. biol. i med.
49 no. 63-67 My '60.                                    (MIRA 13:12)

1. Predstavlena deystvitel'nym chlenom AMN SSSR V.V. Parinym.
   (ELECTRO MAGNETIC WAVES—PHYSIOLOGICAL EFFECT)
                  (CEREBRAL CORTEX)

KOZNOVA, L.B.; KHRUSHCHEV, V.G.

Some data on radiation effects with high dosage intensity.  Med.
rad. 5 no.10:61-67 '60.
(RADIATION—PHYSIOLOGICAL EFFECT)                (MIRA 14:2)

37644
S/638/61/003/000/002/005
D296/D307

27. 1220

AUTHORS:       Darenskaya, N.G., Domshlak, M.P., Koznova, L.B., and Khrushchev, V.G.

TITLE:         A γ-ray device with an activity of 32,000 g-equivalent radium (Results of some biological investigations)

SOURCE:        Trudy Tashkentskoy konferentsii po mirnomu ispol'zova-niyu atomnoy energii, v. 3, Tashkent, Izd-vo AN Uzb. SSR, 1961, 63 - 69

TEXT:  The authors describe in detail a new powerful γ-ray device: ЭГO-20 (EGO-20) suitable for experimental irradiation of all types of laboratory animals. The device was used to study the biological effects of very large doses of radiation to corroborate reports, according to which exposure to radiation at a higher rate produces less marked biological effects than the same dose administered over a longer period. The device consists of 2 containers, the first of which measures 280 x 140 x 380 cm in size and serves as receptacle for the $Co^{60}$ elements; in this container the elements are assorted, arranged and put into working position in the desired strength and Card 1/3

A γ-ray device with an activity of ...     S/638/61/003/000/002/005
                                            D296/D307

but rats exposed to the higher rate (2000 r/min) lived 27 hrs. 50 min. compared to an average of 10 hours 27 min. in rats exposed to the lower rate (387-500 r/min). In mice the difference was even more striking: 20 hours 28 min. and 4 hours 26 min. respectively. Convulsions appeared very early in dogs exposed to the lower rate of radiation: after 10 - 20 min. (total dose 15,000 r) and 4 min. (total dose 30,000 r) respectively. Dogs exposed to 2000 r/min showed the first convulsions after 40-45 min. (15,000 r) and 20-40 min. (30,000 r) respectively. In rats and mice the interval between the exposure and the onset of convulsions was about twice as long in animals exposed to the higher rate. These findings are consistent with the report of Pugh and Clugston and suggest that in addition to species-specific features an increase in the rate of administration may cause far reaching changes in the biological effect of high radiation doses. There are 3 figures and 3 tables. The most important English-language reference is: R. Pugh and H. Clugston, Radiation Research, 1, 5, 437-447, 1954.

ASSOCIATION: Ministerstvo zdravookhraneniya SSSR (USSR Ministry of Health)

Card 3/3

32759
S/205/61/001/006/019/022
D243/D305

27.2400

AUTHORS:     Khrushchev, V.G., Darenskaya, N.G., and Pravdina, G.M.

TITLE:       The behavior of mice in a field of γ-radiation

PERIODICAL:  Radiobiologiya, v. 1, no. 6, 1961, 940 - 945

TEXT:   The authors studied mouse behavior in a γ-radiation field by a new method. Previous work is briefly surveyed and its limitations indicated, namely: 1) There is little information on the immediate effects of radiation; 2) The qualitative aspect of responses is usually described; 3) High radiation doses were used; and 4) Reactions were studied against a background of active radiation sickness. In the present method the animal chooses water or food from an irradiated or protected site. A special, two-sectioned chamber or organic glass was constructed, the sections being joined by a passage which could be closed when needed. In one chamber, the animals were kept, and in the other, were two symmetrically placed troughs, surrounded by lead shields. A $^{60}$Co preparation sited nearby acted as a γ-radiation source, equivalent to 90 mg. equiv. of

Card 1/3

The behavior of mice in a field ...

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S/205/61/001/006/019/022
D243/D305

radium. Duration of the animal's stay at the water trough was mea-
sured. 70 white mice of 18 – 22 g wt. were subjected to total, cra-
nical or abdominal radiation. Groups of 10 – 20 mice were kept in
the chamber constantly, mainly in the first compartment, entering
the second for short periods to feed. The acclimatization period
was 2-3 weeks. Before irradiation, both troughs were used equally.
With total irradiation, observations were carried out over a 70 day
period. Irradiation during feeding was 0.0023 rads/sec, the source
changing from one trough to the other five times. In cranial and
abdominal radiation, observations were carried out over 45 days,
after which the animals were killed and autopsied, and 55 days, re-
spectively. The source switched troughs three times, and the radia-
tion rate was 0.35 – 0.45 rads/sec. After irradiation, water inta-
ke fell in most cases for 2-3 days, most markedly after cranial ir-
radiation. Then, water was selectively taken at the unirradiated
trough. This selectivity occurred after all types of radiation but
was commonest after total irradiation; it was shown, moreover, that
it begins immediately after radiation commences, i.e. at doses of
1-2 rads. for cranial and abdominal irradiation and 0.001 – 0.05
rads. for total radiation. Experiments were carried out to demon-
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S/205/61/001/006/019/022
D243/D305

The behavior of mice in a field ...

strate that selectivity was not caused by post-radiation changes in water properties or radical and peroxide compount formation or by light sensations. It is not the result of the damaging action of $\gamma$-radiation or mediated via the visual, suprarenal and hypophyseal systems (Ref. 25: J. Garcia and D.J. Kimeldorf, Compar, and Physiol Psychol. 51, 288, 1958). It is suggested that this method can be used to study the reaction of other organs to radiation and to determine threshold doses and individual sensitivity. There are 2 figures and 26 references: 10 Soviet-bloc and 16 non-Soviet-bloc., The four most recent references to the English-language publications read as follows: O.D. Hug. Intern. J. Rad. Biology, 1960, Soppl.; D.J. Kimeldorf, J. Garcia and D.O. Rubadeou, Radiation Res. 12, 6, 710, 1960; H.L. Andrews and L.M. Cameron, Proc. Soc. Exptl. Biol. and Med., 103, 3, 565, 1960; J. Garcia and D.J. Kimeldorf, Radiation Res., 12, 6, 719, 1960.

SUBMITTED:   July 19, 1961

Card 3/3

KHRUSHCHEV, V.G.; PRAVDINA, G.M.; DARENSKAYA, N.G.

Behavior of the fruit fly (Drosophila melanogaster) during irradiation.
Radiobiologiia 2 no.2:272-279 '62.                    (MIRA 15:4)
              (RADIATION—PHYSIOLOGICAL EFFECT)   (FRUIT FLIES)

KHRUSHCHEV, V.G.; MARGULIS, U.Ya.; STEPANOV, S.M.

How to increase the efficiency of radiation from gamma-ray sources.
Atom. energ. 12 no.6:536-537 Je '62.                    (MIRA 15:6)
(Gamma rays)

LUR'YE, L.S.; KHRUSHCHEV, V.G.; YELISEYEV, V.S.; KUZNETSOV, S.V.

Irradiation plants at the All-Union Scientific Research
Institute for the Electrification of Agriculture.  Atom.
energ. 19 no.2:212-216  Ag '65.                    (MIRA 18:9)

ARKHIPOV, V.V.; LUR'YE, L.S.; PROKOF'YEV, N.S.; KHRUSHCHEV, V.G.

Prospects for the use of radiation sterilization in veterinary
medicine. Veterinariia 42 no.12;82-84  D '65.          (MIRA 19:1)

L 04237-67     EWT(m)     RD/GD

ACC NR:     AT6031238          SOURCE CODE: UR/0000/65/000/000/0001/0019

AUTHOR: Darenskaya, N. G. ; Pravdina, G. M. ; Khrushchev, V. G.          43

ORG: none                                                                 B+1

TITLE: Behavior of living organisms in radiation fields

SOURCE: USSR. Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii.
Doklady, 1965. Povedeniye zhivykh organizmov v polyakh izlucheniy, 1-19

TOPIC TAGS: radiation sensitivity, radiation biologic effect, radiation effect,
radiation threshold, irradiation effect, gamma radiation

ABSTRACT: A method is described which makes it possible to measure the
reactions of different species of animals to small amounts of radiation emitted
at a constant rate, and thus to determine their individual sensitivity to radiation.
The method was used to test the radiation sensitivity of mice, rats, guinea pigs,
and monkeys. It was found that the animals reacted to very small amounts of
radiation: 1—2 r when irradiated in the cephalic or abdominal region, and 0.001—
0.05 r when exposed to total-body irradiation. It was also found that the different
species developed the ability to sense and avoid the danger zone; thus a drinking

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ACC NR: AT6031238

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bowl kept in a zone of gamma radiation was not used by the animals. Threshold amounts to which animals reacted under total radiation were: 0.0017 r/sec for guinea pigs, 0.0023 r/sec for mice, and 0.0127 r/sec for rats. Orig. art. has: 7 figures. [Based on authors' abstract]

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 016/ OTH REF: 020/

Card 2/2

ACC NR:   AT6029623              SOURCE CODE:  UR/0000/66/000/000/0007/0033

AUTHOR:  Dmshlak, N. P.; Daronskaya, N. G.; Khrushchov, V. G.; Koznova, L. B.;
Stepanov, S. H. (deceased)

ORG:  none

TITLE:  X-ray and gamma irradiation in experimental radiobiology

SOURCE:  Voprosy obshchey radiobiologii (Problems of general radiobiology). Moscow,
Atomizdat, 1966, 7-33

TOPIC TAGS:  X-ray irradiation, gamma irradiation, radiobiology, irradiation apparatus,
irradiation dosimetry, irradiation effect

ABSTRACT:  Materials on radiobiological studies based on literature data and
experimentation are presented.  The authors evaluate various standard radiobiological
experimental methods and try to point out the pathways for future development of
experimental methods and techniques.  Specific recommendations for conducting
experimental investigations include the following.  An EGO-2 gamma irradiation unit is
considered most effective for irradiation of large and small laboratory animals.
X-ray irradiation units are considered effective for investigating large dose
irradiation, the RBE of different types of irradiation and subacute irradiation of
large and small animals.  In conducting experiments designed to induce a 100% death

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L 10279-67

ACC NR:   AT6029623

rate of irradiated animals, the selected $LD_{100/30}$ should be 5% higher than the standard dose value to avoid significant fluctuations ($\pm$ 5%). In evaluating investigation results, it should be noted that change of gamma or x-ray irradiation dose rates within the 15 to 150 r/min range does not seriously affect irradiation action; also, decrease of gamma or X-ray irradiation dose rates below 15 r/min or increase exceeding 2000 r/min weakens the biological radiation effect. For more effective comparison of radiosensitivity, experimental animals should be of the same sex, same weight category and age. In evaluating experimental data the following factors should be taken into consideration:  time of year animals were irradiated, radiosensitivity differences of the given animal strain or line, and indices showing the statistical reliability of experimental results. Orig. art. has:  10 tables and 12 figures.

SUB CODE:  06/  SUBM DATE:  23 Apr66/  ORIG REF:  019/  OTH REF:  005

Card  2/2

L 11277-67  EWT(1)/EWT(m)   JK/GD

ACC NR:   AT6029636                     SOURCE CODE:  UR/0000/66/000/000/0273/0277

AUTHOR:  Pershina, Z. G.; Koznova, L. B.; Sobolev, S. M.; Khrushchev, V. G.

ORG:  none

TITLE:  Influence of dose rate and time factor on the bactericidal effect of irradiation

SOURCE:  Voprosy obshchey radiobiologii (Problems of general radiobiology). Moscow,
Atomizdat, 1966, 273-277

TOPIC TAGS:  microorganism contamination, gamma irradiation, particular radiation
biologic effect, irradiation intensity

ABSTRACT:  Experiments were conducted on vegetative microorganisms, B. coli 613, and
on spore form microorganisms, B. anthracoides, to determine the influence of dose rate
and time on the bactericidal effect of irradiation. B. coli 613 were gamma irradiated
with single 50 kr doses at dose rates of 111.5 r/min (7 hr 29 min), 334.5 r/min (2 hrs
29 min), 600 r/min (83 min 20 sec) and 14,760 r/min (3 min 23 sec). The highest
bactericidal effects were found with dose rates of 111.5 and 334.5 r/min. Similar
results were found with irradiation of B coli 613 with a 100,000 r dose at dose rates
of 107 r/min (15 hrs 35 min) and 320 r/min (5hrs 12 min 30 sec). A complete
bactericidal effect was achieved with the 107 r/min dose rate, while with the 320 r/min

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L 11277-67

ACC NR:   AT6029636

dose rate the bacterial colonies increased by $2.3 \times 10^{-5}\%$. In experiments on
B. anthracoides, irradiation with a 800,000 r dose at a dose rate of 174 r/min produces
a complete bactericidal effect, whereas a dose rate of 48,000 r/min increases the
number of bacteria by $9 \times 10^{-2}\%$. With irradiation of bacteria in higher concentrations
using the same dose, a comparable dependence of bactericidal effect on dose rate is
found, but is less markedly expressed. Experimental data show that increase of
irradiation time in the dose rate range of 111.5 to 48,000 r/min increases the
bactericidal effect. Future studies should be directed toward finding optimal
irradiation conditions for complete bactericidal effects. Orig. art. has: 2 tables.

SUB CODE: 06/ SUBM DATE: 23Apr66/ ORIG REF: 005/ OTH REF: 005

Card 2/2  jb

KHRUSHCHEV, V.I., mayor meditsinskoy sluzhby

Methods for preventing neglected forms of bladder tumors. Voen. med. D '56.
(MIRA 10:3)

(BLADDER--TUMORS)

EXCERPTA MEDICA Sec 9/Vol 13/5 SURGERY May 59 .              , 19*)

2837. BILHARZIOSIS (SCHISTOSOMIASIS) OF THE DUCTUS DEFERENS (Russian text) - Khrushchev V. I. - UROL. 1957, 2 (53-56)

Schistosoma (fluke) usually live in the venous system of the human, and one kind of the parasite - blood fluke - affects mainly the smallest vessels of the bladder and of reproductive organs. A 29-year-old patient was observed who complained of pain and swelling in the right half of the scrotum; the symptoms arose after bathing in a lake (in China) where parasites breed. Tubercular epididymitis was suspected clinically. After unsuccessful treatment with streptomycin and phthivazid (isoniazid derivative) operation was resorted to. The ductus deferens and adjoining vessels were found to be firmly glued together in a compact smooth mass. The testicle and the epididymis were enlarged. The ductus deferens was excised through healthy tissue, and the testicle and the epididymis were resected. The examination of the specimen showed the presence of a chronic inflammation: inside the granulation and scar tissue were many obliterated veins and the blood fluke was found in the tissue of the infiltrate. The patient improved. An examination a year later found him healthy.

(S)

| | | |
|---|---|---|
| COUNTRY | : | USSR U |
| CATEGORY | : | General Problems of Pathology. Tumors. Comparative Oncology. Human Neoplasms. |
| ABS. JOUR. | : | RZhBiol., No. 23 1958, No. 107148 |
| AUTHOR | : | Khrushchev, V.I. |
| INST. | : | |
| TITLE | : | The Pathogenesis and Clinic of Cancer of the Urinary Bladder. |
| ORIG. PUB. | : | Sov.meditsina,1958,No.1,112-116. |
| ABSTRACT | : | No abstract. |

CARD:        1/1

-38-

KHRUSHCHEV, V.I.

Pathogenesis and clinical picture of cancer of the urinary
bladder.  Sov.med. 22 no.1:112-116 Ja '58.         (MIRA 11:4)

1. Iz Glavnogo voyennogo gospitalya imeni akad. N.N.Burdenko
(Nachal'nik gospitalya - N.M.Nevskiy)
        (BLADDER, neoplasms
            pathogen. & clin. manifest. (Rus))

KHRUSHCHEV, V.I. (Moskva)

Late results of treatment of tumors of the urinary bladder.
Vrach.delo no.2:191 F '59.                    (MIRA 12:6)
(BLADDER--TUMORS)

KHRUSHCHEV, V.I.

Modern views on the nature of epithelial tumors of the bladder and
their classification. Urologiia  24 no.5:3-8 S-O '59.      (MIRA 12:12)

1. Iz urologicheskogo (nach. I.S. Slizskiy) i patologoanatomicheskogo
(nach. R.D. Shtern) otdeleniy Glavnogo voyennogo gospitalya imeni
N.N. Burdenko.
                (NEOPLASMS EPITHELIAL)
                (BLADDER  neoplasms)

KHRUSHCHEV, V.I. (Moskva)

Comparative evaluation of therapeutic methods in cancer of the
urinary bladder. Urologiia  no.5:46-52 '61.          (MIRA 14:11)

1. Iz urologicheskogo (nach. I.S. Slizkiy) i rentgeno-terapev-
ticheskogo (nach. A.N. Gamaleya) otdeleniy Glavnogo voyennogo
gospitalya imeni N.N. Burdenko.
                  (BLADDER--CANCER)

KHRUSHCHEV, V.I.

Dystopia of the kidneys, simulating acute appendicitis. Khirurgiia
no.3:94-96 '62.                                                (MIRA 15:3)

1. Iz urologicheskogo otdeleniya (nach. I.S. Slizkiy) Glavnogo
voyennogo gospitalya imeni N.N. Burdenko.
     (KIDNEYS—ABNORMITIES AND DEFORMITIES) (APPENDICITIS)

BARBUKOVA, V.I., kand. ist. nauk; DEMIDOVA, Z.F., kand. ist. nauk;
POSELYANINA, O.K., kand. ist. nauk; SORIN, Yu.N., kand.
ist. nauk; SHATVOROVA, V.D.; kand. ist. nauk; KHRUSHCHEV,
V.I.; STARODUBTSEV, N.I.; SHVETS, I.Ye.; TOROPCHIN, N.8.;
red.; IVANOVA, R.N., tekhn. red.

[Krasnyi Aksay; from the history of the M.V.Frunze Rostov
Plant of Agricultural Machinery]Krasnyi Aksai; iz istorii
Rostovskogo zavoda sel'skokhoziaistvennogo mashinostroeni-
ia imeni M.V.Frunze. Rostov-na-Donu, Rostovskoe knizhnoe izd-
vo, 1962.  158 p.                                    (MIRA 15:9)

1. Prepodavateli Rostovskogo gosudarstvennogo universiteta
(for Barbukova, Demidova, Poselyanina, Sorin, Shatvorova).
2. Otvetstvennyy sekretar' mnogotirazhnoy gazety "Krasnyy
aksayets" (for Khrushchev). 3.  Zaveduyushchiy kabinetom po-
liticheskogo prosveshcheniya partiynogo komiteta Rostovskogo
zavoda sel'skokhozyaystvennogo mashinostroyeniya "Krasnyy
Aksay" (for Starodubtsev). 4. Rabochiy remontno-mekhanicheskogo
tsekha Rostovskogo zavoda sel'skokhozyaystvennogo mashino-
stroyeniya "Krasnyy Aksay" (for Shvets ).
              (Rostov-on-Don—Agricultural machinery)

KHRUSHCHEV, V.P.

Introducing a machine for removing seams from rubber round
drive belts. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.
nauch.i tekh.inform. 18 no.11:57  N '65.

(MIRA 18:12)

KHRUSHCHEV, V.S.

Measures for improving stomatological care in Kaluga.   Zdrav. Ros.
Feder. 5 no.7:27-29 Jl '61.                               (MIRA 14:7)

1. Zaveduyushchiy Kaluzhskim gorzdravotdelom.
                    (KALUGA--STOMATOLOGY)

KHRUSHCHEV, V.S.; GOTLIB, V.O. (Kaluga)

Health day in Kaluga. Sov. zdrav. 21 no.3:31-33 '62. (MIRA 15:3)

1. Zaveduyushchiy Kaluzhskim gorodskim zdravotdelom (for Khrushchev). 2. Glavnyy vrach detskoy Kaluzhskoy gorodskoy bol'nitsy (for Gotlib).
(KALUGA---PUBLIC HEALTH)

KHRUSHCHEV V. V.

Theory of coagulation and particle growth in sols. III. Kinetics of particle growth in a polydisperse system in a vacuum. O. M. Todes and V. V. Khrushchev (State Univ., Leningrad). *J. Phys. Chem.* (U.S.S.R.) 21, 301–12(1947)(in Russian); cf. C.A. 41, 330r.—The rate of distn. from small onto larger particles is calcd. for a vacuum such that the free path of the mols. is great compared with the distance between the particles. For this system, the gradual alteration of the size frequency distribution is calcd., as well as the rate of decrease of the supersatn. of the vapor, the total no. of particles at different times, etc. The results are successfully compared with Lyalikov's data (C.A. 34, 5713⁵) on distn. of Hg droplets.

J. J. Bikerman

KHRUSHCHEV, V. V.

The following is among dissertations of the Leningrad Polytechnic
Institute imeni Kalinin:

"Application of the Method of the Transformation of Coordinates to the
Theory of the Systems of Synchronous Relation ship on Phaneropolar selsyns
are given and also equations of the most simple synchronous relationship
consisting of two identical selsyns.  Equations for different operating
conditions of two selsyns have been investigated.  An examination was made
of the operation of a system in the absense of excitation on the receiver,
of the conditions of small oscillations, and of certain asynchronous con-
ditions of a system with two selsyns.

SO: M-1048, 28 Mar 56

*Khrushchev, V. V.*

Call Nr:  AF 1146902

**AUTHOR:** Mkrtchyan, D. P., Khrushchev, V. V.

**TITLE:** Single-phase Selsyns (Odnofaznyye selsiny)

**PUB. DATA:** State United Publishing House of the Shipbuilding Industry, Leningrad, 1957, 344 pages, 5,500 copies.

**ORIG. AGENCY:** None

**EDITOR:** Scientific Editor: Magin, S. M.; Editor: Isayev, V. A.; Technical Editors: Dvorakovskaya, A. A., and Frumkin, P. S.

**PURPOSE:** The book is intended for engineers and technicians engaged in problems of selsyn design and operation and for students of advanced courses in university schools of electrical engineering.

**COVERAGE:**

**Preface:**

**Card 1/13**

Prof. D. V. Vasil'yev and S. M. Magin are mentioned as having submitted several valuable observations and indications after reading the manuscript.

Single-phase Selsyns   (Cont.)

Introduction:   In the historical review (pp. 15-29), the following
                names of Russian and Soviet inventors and specialists
                in this field are given with a description of their
                inventions:

                Geysler, a telegraph operator in St. Petersburg, who
                submitted in 1890 a synchro pulse transmission system
                for use in navigation control.  Since 1898 this system
                has found wide application in the Russian Navy as the
                "Geysler System".

                V. V. Kolokol'tsov, a naval officer who submitted in
                1888 a system of d-c synchronous pulse signaling system
                in use in the Russian Navy since 1890.

                F. N. Maksimov. a navy captain who submitted in 1892 a
                d-c pulse synchro-transmission system with a reluctance
                motor.  This system found application only in the 1930's,
                when reluctance motors were improved.

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Single-phase Selsyns   (Cont.)

I. C. Marugin introduced improvements in the above
system by designing special transmitters consisting of
a structural combination of the motor commutator with
a potentiometer.  The first single-phase a-c synchro-
transmission was applied in the Russian Navy in 1913.

A. G. Iosif'yan and D. V. Svecharnik, both working at
the All-Union Institute of Electrical Engineering (VEI), submitted
in 1938 a new type of mag-slip or contactless synchro,
the "VEI mag-slip".

I. D. Sadovskiv in 1939 obtained author's certificate
Nr. 56183 for a mag-slip with two stators and rotors
and Nr. 65902 for another type of mag-slip with a single
stator and rotor and double windings.

Ch. 2.   G. I. Shturman, D. V. Vasil'yev and A. A. Gorod-
skoy are mentioned as the authors of works most com-
pletely developing the method of rotating fields in
application to selsyns.  A. G. Iosif'yan, L. N. Gruzov
and V. V. Khrushchev are the authors of a "clear and

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Single-phase Selsyns   (Cont.)

simplified physical picture of the phenomena of double
reaction occurring in selsyns" as well as of simplified
formulae for synchronizing torques.  L. N. Gruzov and
G. I. Shturman worked on a theoretical analysis of
synchro-transmitters with an electric differentiator.

Ch. 4.  A mag-slip of the Б C-404 A type and of the
CC-404 type contact selsyn are discussed in connection
with static errors.  The salient-pole HA -501-type
selsyn is analyzed as concerns the reactive moment of
the toothed parts of the rotor and stator and this is
compared with the toothed reactive moment curve of the
Б C-404 type selsyn.

Ch. 6.  A two-step friction-inert damper submitted by
D. P. Mkrtehyan in 1941 and applied in the CC-500 and
DC-500 types of selsyns is described (p. 200-202).
The following selsyns are described and illustrated:
Contact selsyn of the CC-404-type operating with a
ДИ -404 type transmitter, (pp. 204-206); contact

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Single-phase Selsyns   (Cont.)

selsyn-receiver of the HC-404 type operating with a
HA-404 type transmitter (pp. 206-209); contact selsyn
receiver of the HC-501 type operating with a HA -501
transmitter (pp. 209-211).  Characteristic curves of
these selsyns and some specifications are given.  The
electric differentiator of the НЭД-101 type is des-
cribed and some specifications given (pp. 213-215).
The following mag-slips are described and illustrated
with characteristic curves and some specifications
given: БС-404A (pp. 224-226);ДБС-500 (pp. 227-230).
Comparative data of contact and contactless selsyns
are presented in a table (p. 231).

Appendix Nr. 3.  (pp. 336-337) presents tables of
electric and structural specifications of 50-cps
contactless (mag-slip) and contact selsyns of the "new
series", in all 20 types, including the indicator
control-transformer types.

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Appendix Nr. 4.  (p. 338) presents a table of electric
and structural specifications of 50-cps selsyns of the
"old series", in all 18 types.

Single-phase Selsyns   (Cont.)                 Call Nr:   AF 1146902

   Appendix Nr. 5.  (p. 339) presents a table of maximum
   permissible number of receivers switched on one trans-
   mitter, with 16 types of receivers and 16 types of
   transmitters.

   There are 52 references of which 36 are USSR and 16 are
   American and British.

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Chapter 1.   Single-phase a-c Synchronous Transmission

Chapter 2.   Theory of Synchro-transmitter Systems
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Chapter 6.   Construction of Selsyns

Chapter 7.   Design of Selsyns

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KHRUSHCHEV, V.V

BESEKERSKIY, Viktor Antonovich, red.; ORLOV, V.P.; POLONSKAYA, L.V.,
Fedorov, S.M.; KHRUSHCHEV, V.V., nauchnyy red.; SHAURAK, Ye.N.,
red.; LEVOCHKINA, L.I., tekhn.red.

[Designing low-power servosystems] Proektirovanie slediashchikh
sistem maloi moshchnosti. Pod red. V.A. Besekerskogo. Leningrad,
Gos.soiuznoe izd-vo sudostroit. promyshl., 1958. 508 p.   (MIRA 11:12)
                    (Servomechanisms)

SOV/110-59-5-16/25

AUTHOR:     Khrushchev, V.V., Candidate of Technical   Sciences

TITLE:      Calculation of the Mechanical Characteristics of a Drag-
            Cup or Sleeve-Rotor Type Induction Motor on the Basis
            of the 2-Reaction Theory (Raschet mekhanicheskikh
            kharakteristik asinkhronnogo dvigatelya s polym
            rotorom na osnove teorii dvukh reaktsiy)

PERIODICAL: Vestnik elektropromyshlennosti, 1959, Nr 5, pp 58-61 (USSR)

ABSTRACT:   Calculation of the mechanical characteristics of a
            controlled drag-cup or sleeve-rotor type induction motor
            is usually based on the theory of rotating fields.
            However, this method involves laborious calculations on
            equivalent circuits for positive and negative phase-
            sequence at various motor speeds.  This article describes
            the procedure for calculating the torque of a sleeve-rotor
            induction motor by the 2-reaction theory and formulae
            are derived by which the mechanical characteristics can
            be simply calculated for various supply conditions.
            The emf and torque equations of the sleeve-rotor
            induction motor can easily be formulated from the
            schematic circuit diagram of the motor given in Fig 1
Card 1/4    and are of the form given in Eq (1).  In formulating

Calculation of the Mechanical Characteristics of a Drag-Cup or
Sleeve-Rotor Type Induction Motor on the Basis of the 2-Reaction
Theory

these equations it is assumed that the voltages and
currents are sinusoidal, the mmf's of all the windings
are sinusoidally distributed in space, there are no
hysteresis or eddy-current losses in the steel, the
leakage inductance of the hollow rotor may be neglected
and all winding parameters, currents and voltages are
referred to the field winding. On this basis expression(2)
is derived for the torque. However, direct solution of
Eq (1) and substitution of the currents in expression (2)
leads to very complicated expressions and, accordingly,
the forms of these equations are modified. Eventually
expression (6) is derived for the torque and
expression (7) for the direct and quadrature rotor
currents. These expressions for the currents are
substituted into expression (6) and the various components
of the torque collected together to give Eq (8), (9) and
(10). Their sum is the resultant torque of the motor.

Card 2/4  The motor torque is then considered for several

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Calculation of the Mechanical Characteristics of a Drag-Cup or
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Theory

particular cases. From examination of conditions when
the control voltage is zero it is shown that the motor
would not start in certain cases. Expression (12) is
derived for the torque as a function of the speed for
various values of control coefficient. From the formulae
that are obtained it is easy to calculate the mechanical
characteristics with various methods of control of the
motor. Very often a rotating magnetic field is
produced in a sleeve-rotor induction motor by connecting
a capacitor in the field circuit, as shown in Fig 2. The
effect of this on the torque formulae is then considered.
Formula (20) is derived by means of which, if the field
winding parameters are known, the values of the
capacitor capacitance and the transformation ratio of
the control winding may be determined. These values are
the ones which give a circular rotating field when the
motor is stationary, provided the control voltage is
equal to the supply voltage. When a capacitor is used
the torque equations (8), (9) and (10) assume the form

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of (21), (22) and (23), the sum of which gives the total
torque of the motor with a capacitor in the field
circuit. A numerical example of calculation of the
mechanical characteristics of a sleeve-rotor induction
motor with capacitor in the field circuit is given as
an appendix. There are 3 figures, 1 table and
2 references, 1 of which is Soviet and 1 English.

SUBMITTED: 10th February 1958

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ZAVALISHIN, Dmitriy Aleksandrovich; BARDINSKIY, Sergey Ivanovich;
    PEVZNER, Osip Borisovich; FROLOV, Boris Vasil'yevich;
    KHRUSHCHEV, Vitaliy Vasil'yevich; USSER, A.S., red.;
    ZHITNIKOVA, O.S., tekhn. red.

[Electrical machines with low-power ratings] Elektricheskie
mashiny maloi moshchnosti. [By] D.A.Zavalishin i dr.  Moskva,
Gosenergoizdat, 1963.  431 p.                (MIRA 17:2)

L. 22401-66    EWT(1)/EWA(h)

ACC NR:  AP6009888                SOURCE CODE:  UR/0413/66/000/004/0080/0081

INVENTOR:  Gerasimov, A. Ya.; Khrushchev, V. V.; Lur'ye, L. Z.; Shtamm, Yu. P.;
Ivanov, V. V.; Nokaln, E. A.

ORG:  none

TITLE:  Device for the display of voltage curves on the screen of a cathode-ray
oscilloscope.  Class 42, No. 179019 [announced by the Special Design Office, AN
Estoniar SSR (Spetsial'noye Konstruktorskoye byuro AN Estonskoy SSR)]

SOURCE:  Izobreteniya, promyshlennyye boraztsy, tovarnyye znaki, no. 4, 1966, 80-81

TOPIC TAGS:  oscilloscope, data display, visual signal, display device

ABSTRACT:  The Author Certificate introduces a device for displaying voltage curves on
an oscilloscope screen.  For enhanced speed and occuracy, the electronic switches are
fitted with elements which correct the characteristics of the pickups and the tubes.
A contactless ring distributor of rectangular pulses is included; it is synchronized
by the voltage of the generator which feeds the pickups.  In order to move the cali-

UDC:  681.14

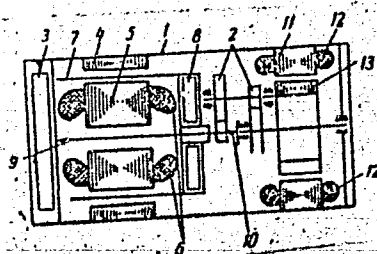Card 1/2

L 22401-66

ACC NR:   AP6009888



Fig. 1.  Display device

1 - Electronic switches; 2 - pickups;
3 - oscilloscope; 4 - calibration
pickup; 5 - delay unit.

bration pickup is connected to the electronic switch through a controlled delay unit.
(see Fig. 1).  Orig. art. has:  1 figure.                                          [DW]

SUB CODE:  09/  SUBM DATE:  12Aug64/

Card   2/2

ODUMANOVA-DUNAYEVA, G.A.; KHRUSHCHEVA, I.V.

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pt.1:36-38 '64.

KHRUSHCHEVA, K.A., uchitel'nitsa (Leningrad)

"Nature corner at school" by M.Kotliar.  Reviewed by K.A.Khrushcheva.
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VISHNEVSKIY, A.A., prof.; GALANKIN, N.K., doktor med. nauk; ARAPOV, A.D.;
AKHMETOV, A.M.; VINITSKAYA, R.S., kand. biol. nauk; VOLYNSKIY,
Yu.D.; DARBINYAN, T.M., kand. med. nauk; DONETSKIY, D.A., kand.
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KRYMSKIY, L.D., kand. med. nauk; LOKSHINA,K.A.;MAZAYEV,P.N.,prof.;PANOVA,
Yu.M.; PROMTOVA, T.N., kand. biol. nauk; PYL'TSOV, I.M.; SERGEYEVA,
K.A., kand. med. nauk; KHARNAS, S.Sh., kand. med. nauk; KHRUSHCHEVA,
kand. med. nauk; TSUKERMAN, B.M., kand. biol. nauk; SHIK, L.L.,
prof.; GOL'DGAMMER, K.K., red.; BALDINA, N.F., tekhn. red.

[Congenital defects of the heart and large vessels]Vrozhdennye po-
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skva, Medgiz, 1962.  577 p.                           (MIRA 16:1)

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Vishnevskiy).
       (CARDIOVASCULAR SYSTEM--DISEASES)

KHRUSCHEVA, K. M.

Wear resistance of iron with nodulized graphite. A. D. Ushakov and K. M. Khrushcheva. *Liteinoe Proizvodstvo* 1953, No. 7, 21-3.—An induction furnace heat of iron contg. C 3.49, Si 2.42, Mn 0.6, P 0.38, and S 0.014% was treated with a 20% Mg-80% Cu alloy, with 0.6% C ferrosilicon (75%), cast into bars 30 mm. in diam., and the latter malleabilized at 720° for different time to change the ferrite-pearlite ratio of the samples. Specimens were then annealed from 900°, quenched from the same temp., and quenched and tempered, in no case resulting in the change of nodulized graphite. Their wear characteristics and coeffs. of friction were compared with conventional cast iron with flaky graphite, with brass and bronze. The wear resistance of nodulized iron with up to 40% pearlite is greater than of modified gray iron with pearlitic matrix, of bronze and brass, but much inferior to them from the antifriction standpoint. The coeff. of friction is the same for nodulized and conventional irons. Hardened and drawn, normalized, and quenched nodulized iron has a better wear resistance than the usual gray iron, but in their case the steel contact roll wore faster than the bearings.          J. D. Gat

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Brucellosis infection transmitted by the tick ornithodoros lahorensis.
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KHRUSHCHEVA, M.P.; REMENTSOVA, M.M.; ZENKOVA, N.F.; KASYMOVA, Kh.A.;
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